AMENDMENTS

In the claims:

Please enter the following amendments:

1. (**Original**) A nucleic acid present in other than its natural environment, wherein said nucleic acid encodes a chromo- or fluorescent protein and is from a non-bioluminescent Cnidarian species.

2. (**Original**) The nucleic acid according to Claim 1, wherein said non-bioluminescent Cnidarian species is an Anthozoan species.

3. (**Original**) The nucleic acid according to Claim 1, wherein said nucleic acid is isolated.

4. (**Original**) A nucleic acid present in other than its natural environment, wherein said nucleic acid encodes an Anthozoan chromo- or fluorescent protein and is from a non-Pennatulacean Anthozoan species.

5. (**Original**) The nucleic acid according to Claim 4, wherein said nucleic acid is isolated.

6. (**Previously Presented**) A nucleic acid having a sequence of residues that is substantially the same as or identical to a nucleotide sequence of at least 10 residues in length of SEQ ID No:11.

7. (**Currently Amended**) The nucleic acid according to Claim 6, wherein said nucleic acid has a sequence similarity of at least about 60% with a sequence of at least 10 residues in length ~~selected from the group of sequences consisting~~ of SEQ ID No:11.

8. (**Original**) A nucleic acid present in other than its natural environment that encodes a chromo and/or fluorescent protein, wherein said protein is either:

(a) from a non-bioluminescent Cnidarian species; or

(b) from a non- Pennatulacean Anthozoan species.

9. (**Original**) The nucleic acid according to Claim 8, wherein said non-bioluminescent Cnidarian species is an Anthozoan species.

10. (**Original**) The nucleic acid according to Claim 9, wherein said nucleic acid is isolated.

11. (**Previously Presented**) The nucleic acid according to Claim 9, wherein said protein has an amino acid sequence of SEQ ID No: 12.

12. (**Original**) A nucleic acid that encodes a mutant protein of a chromo and/or fluorescent protein that is either:

(a) from a non-bioluminescent Cnidarian species; or

(b) from a non- Pennatulacean Anthozoan species.

13. (**Original**) The nucleic acid according to Claim 12, wherein said non-bioluminescent Cnidarian species is an Anthozoan species.

14. (**Original**) The nucleic acid according to Claim 12, wherein said mutant protein comprises at least one point mutation as compared to its wild type protein.

15. (**Original**) The nucleic acid according to Claim 12, wherein said mutant protein comprises at least one deletion mutation as compared to its wild type protein.

16. (**Previously Presented**) A fragment of the nucleic acid selected from the group consisting of:

(a) a nucleic acid encoding a chromo- or fluorescent protein from a non-bioluminescent Cnidarian species;

(b) a nucleic acid encoding an Anthozoan chromo- or fluorescent protein from a non-Pennatulacean Anthozoan species;

(c) a nucleic acid having a sequence of residues that is substantially the same as or identical to a nucleotide sequence of at least 10 residues in length of SEQ ID No:11; and

(d) a nucleic acid that encodes a mutant protein of an Anthozoan chromo and/or fluorescent protein that is either:

(i) from a non-bioluminescent Cnidarian species; or

(ii) from a non- Pennatulacean Anthozoan species.

17. (**Original**) The fragment according to Claim 16, wherein said non-bioluminescent Cnidarian species is an Anthozoan species.

18. (**Previously Presented**) An isolated nucleic acid or mimetic thereof that hybridizes under stringent conditions to a nucleic acid selected from the group consisting of:

(a) a nucleic acid encoding a chromo- or fluorescent protein from a non-bioluminescent Cnidarian species;

(b) a nucleic acid encoding an Anthozoan chromo- or fluorescent protein from a non-Pennatulacean Anthozoan species;

(c) a nucleic acid having a sequence of residues that is substantially the same as or identical to a nucleotide sequence of at least 10 residues in length of SEQ ID No:11;

(d) a nucleic acid that encodes a mutant protein of an Anthozoan chromo and/or fluorescent protein that is either:

(i) from a non-bioluminescent Cnidarian species; or

(ii) from a non- Pennatulacean Anthozoan species; and

(e) fragments of the above sequences;

or its complementary sequence.

19. (**Original**) The nucleic acid according to Claim 18, wherein said non-bioluminescent Cnidarian species is an Anthozoan species.

20. (**Previously Presented**) A construct comprising a vector and a nucleic acid selected from the group consisting of:

(a) a nucleic acid encoding a chromo- or fluorescent protein from a non-bioluminescent Cnidarian species;

(b) a nucleic acid encoding an Anthozoan chromo- or fluorescent protein from a non-Pennatulacean Anthozoan species;

(c) a nucleic acid having a sequence of residues that is substantially the same as or identical to a nucleotide sequence of at least 10 residues in length of SEQ ID No:11;

(d) a nucleic acid that encodes a mutant protein of a chromo and/or fluorescent protein that is either:

(i) from a non-bioluminescent Cnidarian species; or

(ii) from a non- Pennatulacean Anthozoan species;

(e) a fragment of the above nucleic acids; and

(f) a nucleic acid or the complement thereof that hybridizes under stringent conditions to the above nucleic acids.

21. (**Original**) The construct according to Claim 20, wherein said non-bioluminescent Cnidarian species is an Anthozoan species.

22. (**Previously Presented**) An expression cassette comprising:

(a) a transcriptional initiation region functional in an expression host;

(b) a nucleic acid selected from the group consisting of the nucleic acids according to Claim 1; and

(c) a transcriptional termination region functional in said expression host.

23. (**Original**) A cell, or the progeny thereof, comprising an expression cassette according to Claim 22 as part of an extrachromosomal element or integrated into the genome of a host cell as a result of introduction of said expression cassette into said host cell.

Claims 24-25 (**Canceled**)

26. (**Withdrawn**) An antibody binding specifically to a protein according to Claim 25.

27. (**Previously Presented**) A transgenic cell or the progeny thereof comprising a transgene selected from the group consisting of a nucleic acids according to Claim 1.

28. (**Withdrawn**)(**Previously Presented**) A transgenic organism capable comprising a transgene selected from the group consisting of a nucleic acids according to Claim 1.

Claim 29. (**Canceled**)

30. (**Withdrawn**) In an application that employs a nucleic acid encoding a chromo- or fluorescent protein, the improvement comprising:

employing a nucleic acid according to Claim 1.

31. (**Previously Presented**) A kit comprising a nucleic acid according to Claim 1 and instructions for using said nucleic acid.

Please add the following new claims:

32. (**New**) A nucleic acid present in other than its natural environment, wherein said nucleic acid encodes a chromo- or fluorescent protein from a non-bioluminescent Cnidarian species, wherein said nucleic acid has a sequence similarity of at least about 40% with SEQ ID NO:11.

33. (**New**) The nucleic acid according to Claim 32, wherein said protein has an absorbance maximum ranging from about 300 to 700 nm.

34. (**New**) The nucleic acid according to Claim 32, wherein said protein has an absorbance maximum ranging from about 350 to 650 nm.

35. (**New**) The nucleic acid according to Claim 32, wherein said protein has an absorbance maximum ranging from about 400 to 600 nm.

36. (**New**) The nucleic acid according to Claims 32, wherein said protein has an excitation spectrum ranging from about 300 to 700 nm and an emission spectrum ranging from about 400 to 800 nm.

37. (**New**) The nucleic acid according to Claim 32, wherein said protein has an excitation spectrum ranging from about 350 to 650 nm and an emission spectrum ranging from about 425 to 775 nm.

38. (**New**) The nucleic acid according to Claim 32, wherein said protein has an excitation spectrum ranging from about 400 to 600 nm and an emission spectrum ranging from about 450 to 750 nm.

39. (**New**) The nucleic acid according to claim 32, wherein said protein has an amino acid sequence of SEQ ID NO:12.

40. (**New**) A nucleic acid present in other than its natural environment, wherein said nucleic acid encodes a chromo- or fluorescent protein from a non-bioluminescent Cnidarian species, wherein said protein has a sequence similarity of at least about 40% with SEQ ID NO:12.

41. (**New**) The nucleic acid according to Claim 39, wherein said protein has an absorbance maximum ranging from about 300 to 700 nm.

42. (**New**) The nucleic acid according to Claim 39, wherein said protein has an absorbance maximum ranging from about 350 to 650 nm.

43. (**New**) The nucleic acid according to Claim 39, wherein said protein has an absorbance maximum ranging from about 400 to 600 nm.

44. (**New**) The nucleic acid according to Claims 39, wherein said protein has an excitation spectrum ranging from about 300 to 700 nm and an emission spectrum ranging from about 400 to 800 nm.

45. (**New**) The nucleic acid according to Claim 39, wherein said protein has an excitation spectrum ranging from about 350 to 650 nm and an emission spectrum ranging from about 425 to 775 nm.

46. (**New**) The nucleic acid according to Claim 39, wherein said protein has an excitation spectrum ranging from about 400 to 600 nm and an emission spectrum ranging from about 450 to 750 nm.

47. (**New**) The nucleic acid according to claim 32, wherein said nucleic acid has nucleotide sequence of SEQ ID NO:12.